CANADA

National Energy Board

# Reasons for Decision

**Poco Petroleums Ltd.**

**North Canadian Oils Limited**

**GH-7-90**



**March 1992**

Gas Exports

**National Energy Board**

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Reasons for Decision

IN THE MATTER OF

**Poco Petroleums Ltd.**

**North Canadian Oils Limited**

Applications Pursuant to Part VI of the National Energy Board Act for Licences to Export Natural Gas

**GH-7-90**

**March 1992**

Gas Exports

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# Recital and Appearances

IN THE MATTER OF the *National Energy Board Act*, and the regulations made thereunder;

AND IN THE MATTER OF the applications filed by Poco Petroleums Ltd. and North Canadian Oils Limited for licences for the export of natural gas pursuant to Part VI of the Act;

AND IN THE MATTER OF Hearing Order GH-7-90, as amended;

HEARD in Vancouver, British Columbia on 23 and 24 October 1990.

BEFORE:

| | |
|---|---|
| W.G. Stewart | Presiding Member |
| R. Priddle | Member |
| R.B. Horner, Q.C. | Member |

APPEARANCES:

| | |
|---|---|
| A. Hollingworth | North Canadian Oils Limited |
| P.J. McIntyre<br>R.B. Brander | Poco Petroleums Ltd. |
| A.S. Richards | BC Gas Inc. |
| C. Bois | CanWest Gas Supply Inc. |
| B. Woods | Mobil Oil Canada |
| K.M. Ormon | Petro-Canada Inc. |
| G. Toews | Western Gas Marketing Limited |
| M.A. Fowke | National Energy Board |

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## Abbreviations

| | |
|---|---|
| Act | *National Energy Board Act* |
| Ada | Ada Cogeneration Limited Partnership |
| ANG | Alberta Natural Gas Company Ltd. |
| Bcf | billion cubic feet |
| Board or NEB | National Energy Board |
| Coenergy | Coenergy Ventures |
| CPCo | Consumers Power Company |
| C.P. National | C.P. National Corporation |
| DOE/FE | (United States of America) Department of Energy, Office of Fossil Energy |
| EARP Order | *Environmental Assessment and Review Process Guidelines Order* |
| EIA | Export Impact Assessment |
| ERCB | (Alberta) Energy Resources Conservation Board |
| GJ | gigajoule(s) |
| IGI | IGI Resources, Inc. |
| Intermountain | Intermountain Gas Company |
| LDCs | local distribution companies |
| MichCon | Michigan Consolidated Gas Company |
| MMBtu | million British thermal units |
| MMcf | million cubic feet |
| NCO | North Canadian Oils Limited |
| Northwest | Northwest Pipeline Corporation |
| NOVA | NOVA Corporation of Alberta |
| Part VI Regulations | *National Energy Board Part VI Regulations* |
| PGT | Pacific Gas Transmission Company |
| Poco | Poco Petroleums Ltd. |

| | |
|---|---|
| U.S. | United States of America |
| Washington Natural | Washington Natural Gas Company |
| Westcoast (Alberta) | Westcoast Transmission Company (Alberta) Ltd. |
| Westcoast | Westcoast Energy Inc. |

# Chapter 1

# Part VI - Gas Export Licence Applications

## 1.1 The Applications

By its Hearing Order GH-7-90, dated 27 August 1990, the National Energy Board ("the Board" or "the NEB") set down for hearing an application for a gas export licence dated 12 June 1990, from Poco Petroleums Ltd. ("Poco") for an export to Washington Natural Gas Company ("Washington Natural"). On 11 September 1990, the Board issued Order AO-1-GH-7-90 amending and supplementing hearing order GH-7-90 by adding to the proceeding an additional gas export licence application from Poco dated 31 July 1990, for an export to IGI Resources, Inc. ("IGI") and one from North Canadian Oils Limited ("NCO") dated 22 August 1990 for an export to Ada Cogeneration Limited Partnership ("Ada"). The hearing was held in Vancouver, British Columbia on 23 and 24 October 1990. Following the conclusion of the hearing, the Board kept the record open in order to allow Poco to file additional information related to its gas supply. Poco filed the last of its outstanding undertakings in April 1991.

## 1.2 Market-Based Procedure

The Board, in considering an export application, must take into account section 118 of the *National Energy Board Act* ("the Act"), which requires that the Board have regard to all considerations that appear to it to be relevant and, in particular, that the Board satisfy itself that the quantity of gas to be exported does not exceed the surplus remaining after due allowance has been made for reasonably foreseeable Canadian requirements, taking account of trends in discovery.

To comply with the requirements of section 118 of the Act, the Board utilizes its Market-Based Procedure. The following discussion of the Board's Market-Based Procedure is general in nature and applies to each of the export applications heard in the GH-7-90 proceeding.

The Market-Based Procedure provides that the Board consider:

- complaints, if any, under the complaints procedure;
- an Export Impact Assessment ("EIA"); and
- any other factors that the Board considers relevant to its determination of the public interest.

In its Proceeding GHW-1-91, dated 14 August 1991, the Board advised interested parties of proposed changes to be made to the Market-Based Procedure. These proposed changes affect the application of the Complaints Procedure and the other public interest considerations. Comments from parties were requested to be filed on 15 October 1991, with reply comment by 20 December 1991.

Insofar as the GHW-1-91 proceeding has not been completed, the Board relied upon the existing procedure for its assessment of the applications heard in GH-7-90.

### *1.2.1 Complaints Procedure*

When an application for an export licence is filed with the Board, interested parties have an opportunity to examine the various elements of the proposal. It is open to Canadian users of natural gas to come forward and object to the export on the grounds that they cannot obtain additional supplies of gas under contract on terms and conditions, including price, similar to those in the export proposal.

There were no complaints made with respect to the applications for export licences in the GH-7-90 proceeding.

### *1.2.2 Export Impact Assessment*

The purpose of the EIA is to assist the Board in determining whether a proposed export is likely to cause Canadians difficulty in meeting their future energy requirements at fair market prices. When the Market-Based Procedure was first introduced, each export applicant was required to file an EIA

assessing the impact of the proposed export on domestic natural gas supply, demand, and prices, and on the ability of Canadian energy markets to adjust to these changes without difficulty.

Pursuant to a review of EIA filing requirements conducted in the fall of 1989, the Board decided that, while it would retain the EIA as part of its Market-Based Procedure, it would conduct its own non-project-specific assessment. Applicants now have the option of using the Board's analysis or of preparing and submitting their own analysis as a basis for assessing whether the proposed exports would result in adjustment difficulties in Canadian energy markets.

The two applicants in GH-7-90 adopted the Board's EIA for their applications.

In this regard, the Board believes that the applied-for export volumes would have little impact on the production, consumption, and price of gas in Canada, and that Canadian energy users would not experience difficulty in meeting their future energy requirements as a result of the proposed exports. The Board is also of the view that Canadian buyers of natural gas would not have significant problems adjusting to market forces that would result from approval of these exports.

### *1.2.3 Other Factors Relevant to the Public Interest*

In addition to using the complaints procedure and the EIA to ascertain whether gas proposed to be exported is surplus, the Board continues, as required by section 118 of the Act, to have regard to all other factors it considers relevant in determining whether a proposed export is in the public interest.

In general, these factors can be placed into two categories: a) gas supply and b) market, commercial arrangements and regulatory status. This listing of factors that the Board may regard as relevant is illustrative rather than exhaustive, but the Board relies heavily on information filed by export licence applicants in accordance with the *National Energy Board Part VI Regulations* ("Part VI Regulations"). This information is used to assess whether an export proposal is in the public interest. The onus is on the applicant to ensure that the filed material is such as to persuade the Board that the project has substance and is at a sufficiently advanced stage of completion to warrant the issue of a licence.

#### 1.2.3.1 Gas Supply

The Board conducts a review of the applicants' gas supply arrangements to assist it in determining whether the proposed exports are in the public interest. In its assessment of gas supply, the Board examines the contractual arrangements pertaining to supply, the adequacy of both reserves and productive capacity to support the applied-for exports and the status of provincial removal authorizations.

The applicants are responsible for providing estimates of remaining established reserves for those fields from which they intend to produce gas for the proposed export. The Board conducted geological and engineering analyses of the applicants' gas supply in order to prepare its own estimate of the applicants' marketable gas reserves.

In its evaluation of gas reserves, the Board makes use of its gas reserves database, which is maintained on an ongoing basis. The evaluation of gas reserves includes a nomenclature check for correlation purposes, volumetric studies of new pools, re-examination of developing pools and performance analysis of producing pools. A review and assessment of the ownership and contractual status of all pools included in the applications is also done.

The Board's estimate of reserves, along with basic deliverability data for each of the pools for which estimates of reserves were submitted, are used in preparing productive capacity projections. Productive capacity projections are generally adjusted to reflect an applicant's expected requirements for gas. The adjusted productive capacity is the estimated productive capacity at any point in time, carrying forward for future use the productive capacity resulting from an earlier excess of productive capacity over production. The requirements shown in the productive capacity figures are based on a load factor of 100 percent and may therefore somewhat overstate the applicants' actual supply requirements. To the extent that a lower load factor is experienced, productive capacity of the applicants' reserves would match its supply

requirements beyond the time indicated by the Board's analysis.

### 1.2.3.2 Market, Commercial Arrangements and Regulatory Status

The Board conducts a review of the market, commercial arrangements and regulatory status underpinning projects to assist it in determining whether the proposed exports are in the public interest. The three applications dealt with herein were for sales either directly to local distribution companies ("LDCs") or to a proposed cogeneration facility. The Board's review of these markets included consideration of the LDCs' current and projected requirements and overall supply portfolio with a view to determining the need for and the role of the Canadian gas supply within that portfolio.

For exports to the cogeneration facility, defined as a facility that produces electricity and thermal energy for use in commercial or industrial operations, an examination of the contractual chain, from the gas sales contract to the power and thermal sales contracts, was conducted. In this regard parties looked to the status of project financing, construction schedules, and qualifying cogeneration facility certification.

Regardless of the type of end-use market, the review included consideration, amongst other items, of the load factors at which the proposed exports are expected to flow and the status of all pertinent regulatory authorizations in Canada and in the United States of America ("U.S.").

The Board's review of the commercial arrangements included consideration of information the applicants were required to provide either in accordance with the Part VI Regulations or in response to Board information requests issued during the course of the hearing. This information included the following:

- the status of upstream and downstream transportation arrangements including all transportation contracts, either in final form or as precedent agreements;

- the contractual obligations entered into between the Canadian sellers and the U.S. buyers including executed gas sales contracts; and

- in the case of a sale to a cogeneration facility, the contractual arrangements the cogeneration facility has entered into with the electric utility and with the steam host.

In its review of the gas sales contracts entered into between the Canadian sellers and the U.S. buyers, the Board made the following determinations:

- whether the contracts are likely to recover associated Canadian intraprovincial and interprovincial transportation costs;

- whether the contracts contain provisions which permit adjustments to reflect changing market conditions over the life of the contract;

- whether the contracts ensure that the volumes contracted for are likely to be taken; and

- whether the contracts have the support of the Canadian producer(s) supplying the gas to the export project.

With respect to the second of the factors listed above, that of contractual responsiveness to changing market conditions, the Board recognizes that there may be cases where contracts are attractive to the parties involved, notwithstanding a lack of flexibility. In implementing the criterion relating to contract responsiveness, the Board operates on the presumption that where contracts are freely negotiated at arm's length, they are in the public as well as private interest.

## 1.3 Sunset Clauses

It has generally been Board practice in issuing a gas export licence to set an initial term of the licence for a short period of time during which, if the export of gas commences, the licence becomes effective for the full period approved by the Board. This condition in the licence is referred to as a sunset clause because the licence would expire if exports had not commenced within a specified timeframe. Inclusion of the sunset clause is intended to limit outstanding licences to those for which the gas actually flows within a reasonable period after the decision. The Board questioned each applicant concerning the acceptability of a sunset clause in the applied-for licence and in

each case the applicant indicated that the inclusion of a sunset clause would be acceptable.

## 1.4 Environmental Screening

On 8 February 1990, the Minister of Energy, Mines and Resources, the Honourable Jake Epp, wrote to the Board requesting clarification on how the Board complied or would comply with the *Environmental Assessment and Review Process Guidelines Order* ("EARP Order") in arriving at its decision to issue licences for the export of natural gas. In his response to the Minister, the Chairman of the Board advised that in compliance with the EARP Order, the Board would be instituting a screening procedure to examine the potential environmental effects of each export proposal before the Board.

The purpose of the environmental screening is to enable the Board to reach one of the conclusions required by section 12 of the EARP Order. To that end, the Board held a written hearing, pursuant to Hearing Order GH-7-90 as amended, wherein it considered submissions from the applicants as well as submissions from all interested parties to GH-7-90.

The applicants filed with the Board environmental information concerning the potential environmental effects of the proposal and the social effects directly related to those environmental effects, including any effects that are external to Canadian territory.

Interested parties were served with the applicants' written submissions and were provided with an opportunity to provide their written views on the issues referred to in those submissions. The applicants were then afforded an opportunity to reply to the written submissions from interested parties.

The Board has completed its environmental screenings and has concluded that, in respect of the export proposals of the applicants, the potentially adverse environmental effects and the social effects directly related thereto are insignificant or mitigable with known technology.

# Chapter 2

# North Canadian Oils Limited

## 2.1 Application Summary

By its application dated 22 August 1990, as amended, NCO applied pursuant to Part VI of the Act for a licence to export gas at Emerson, Manitoba with the following terms and conditions:

| | | |
|---|---|---|
| Term | - 15 years commencing on 1 January 1991 and ending on 31 December 2005 | |
| Maximum Daily Quantity | - 198.3 $10^3m^3$ | (7.0 MMcf) |
| Maximum Annual Quantity | - 72.4 $10^6m^3$ | (2.6 Bcf) |
| Maximum Term Quantity | - 1 085.0 $10^6m^3$ | (38.3 Bcf) |
| Tolerances | - 10 percent per day and 2 percent per year | |
| | - to export any volumes authorized for export, which are not actually exported during any year, during the remaining term of the Licence, subject to the applied-for annual and daily volumes. | |

The gas proposed for export would come from proven reserves owned exclusively by NCO in the North Sandhills, South Sandhills and Maple Creek areas of Saskatchewan.

In Canada, the gas would be transported on TransGas Limited and TransCanada PipeLines Limited to the Emerson, Manitoba export point. In the United States the gas would be shipped on Great Lakes Gas Transmission Company, ANR Pipeline Company and on Michigan Consolidated Gas Company ("MichCon") to the cogeneration facility.

The gas would be sold to Ada for the cogeneration of electricity and steam in a plant located in Ada, Michigan. The plant's electrical output would be sold to Consumers Power Company ("CPCo"), while the steam would be sold to Amway Corporation.

## 2.2 Decision

Following the close of the hearing, NCO advised the Board by letter dated 27 December 1990 that a new partner, Coenergy Ventures ("Coenergy"), had become a limited partner in the Ada project and that Coenergy was a subsidiary of MCN Corporation, the holding company of MichCon. As a result of the inclusion of Coenergy in the Ada project, NCO might no longer be the supplier of gas to the Ada project.

After receiving this information the Board, by its letter dated 14 January 1991, decided to suspend its deliberation of the NCO application until all arrangements had been finalized. NCO was directed to inform the Board when such arrangements had been made with Ada and any other supplier to the Ada project and to file this information with the Board and interested parties. The Board indicated that following receipt of this information it would decide on an appropriate course of action and would likely reopen the hearing to consider the new information.

NCO did not respond to the Board's letter and the record to the GH-7-90 proceeding with respect to the NCO application remains incomplete. As a result of the fact that the evidence filed in support of NCO's application was no longer valid, and the Board in these circumstances is unable to assess the application with respect to its main components i.e. supply, markets and transportation, the Board has decided that it cannot issue a licence based on the record, and accordingly has decided to deny NCO's application for a gas export licence to serve Ada.

# Chapter 3

# Poco Petroleums Ltd./Washington Natural Gas Company

## 3.1 Application Summary

By application dated 12 June 1990, as amended, Poco sought pursuant to Part VI of the Act a licence to export natural gas at Huntingdon, British Columbia with the following terms and conditions:

| | | |
|---|---|---|
| Term | - nine years and two months, commencing on 1 September 1990 and ending on 31 October 1999 | |
| Maximum Daily Quantity | - 424.9 $10^3m^3$ | (15.0 MMcf) |
| Maximum Annual Quantity | - 155.1 $10^6m^3$ | (5.5 Bcf) |
| Maximum Term Quantity | - 1 138.4 $10^6m^3$ | (40.2 Bcf) |
| Tolerances | - 10 percent per day and 2 percent per year | |

The gas to be exported would come from reserves owned and controlled by Poco in Alberta, Saskatchewan and British Columbia. In the next few years, Poco may replace some or all of the Alberta supply with gas from British Columbia.

In Canada, the gas would be delivered by NOVA Corporation of Alberta ("NOVA") directly to Westcoast Energy Inc. ("Westcoast") at Boundary Lake, Alberta or to the Westcoast Transmission Company (Alberta) Ltd. ("Westcoast (Alberta)") system at Gordondale, Alberta and then delivered to Westcoast for transport to the international border near Huntingdon, British Columbia. In the U.S. the gas would be shipped on the Northwest Pipeline Corporation ("Northwest") system.

The gas would be purchased by Washington Natural to be used as system supply in northwest Washington.

## 3.2 Gas Supply

### *3.2.1 Supply Contracts*

Poco submitted a list of pools from which it intends to provide the required volumes for the proposed exports to Washington Natural and IGI and for previously-approved exports to CPCo and to Midland Cogeneration Venture pursuant to gas export Licences GL-117 and GL-118. Since Poco intends to supply the projects with gas from its own pools, no gas supply contracts were required.

### *3.2.2 Reserves*

Poco provided estimates of both established reserves and undiscovered potential in support of its application. Table 1 shows that the Board's estimate of Poco's established gas reserves is 5 percent lower than Poco's estimate, but it is 21 percent higher than the total required volumes. In addition to the established reserves, Poco included in its total supply an estimate of undiscovered potential for undrilled lands. The Board's estimate of undiscovered potential is 18 percent lower than Poco's estimate and represents 32 percent of the Board's total estimate of supply. With the inclusion of undiscovered potential, the Board's estimate of Poco's total supply is 10 percent lower than Poco's estimate, but exceeds the total requirements by 78 percent.

Poco has dedicated 100 percent of both the established reserves and the undiscovered potential to its supply pool. Its supply pool must fulfill the remaining requirements of the GL-117 and GL-118 licences and the new volumes for IGI and Washington Natural. Poco's total requirements consist of 1 138 $10^6m^3$ (40 Bcf) and 1 583 $10^6m^3$ (56 Bcf) for the IGI and Washington Natural exports respectively, and 2 505 $10^6m^3$ (88 Bcf) under Licences GL-117 and GL-118.

Poco's established reserves are comprised of pools in Alberta, British Columbia and Saskatchewan. The Board's estimate of Poco's established reserves is 6 340 $10^6m^3$ (224 Bcf), as compared to

Table 3-1

**Comparison of Estimates of Poco's Established Gas Reserves**

$10^6m^3$ (Bcf)

| | POCO[1] | | NEB[2] | |
|---|---|---|---|---|
| Established Reserves | 6 643 | (235) | 6 340 | (224) |
| Undiscovered Potential | 3 598 | (127)[3] | 2 944 | (104) |
| **TOTAL SUPPLY** | **10 241** | **(362)** | **9 284** | **(328)** |
| **TOTAL REQUIREMENTS[4]** | **5 226** | **(184)** | **5 226** | **(184)** |

1. as of 1 November 1990
2. as of 31 December 1989
3. testimony of R. Waldner, 23 October 1990
4. requirements consist of the applied-for volumes plus the GL-117 and GL-118 licence volumes, all to be supplied from the submitted list of pools.

Poco's estimate of 6 643 $10^6m^3$ (235 Bcf). The difference in estimates of reserves is primarily due to differences in interpretation of net pay. The remainder of the difference in estimates is the result of differences in interpretation of pool performance and to some extent, minor recovery factor differences.

The Board notes that Poco generally does not use full-section assignments for single-well pools and as a result, Poco's estimates of established reserves for these pools are very similar to those of the Board.

The Board recognized 275 pools in Alberta, 35 pools in British Columbia and three pools in Saskatchewan in assessing Poco's established reserves. Eighty-one percent of the pools are less than 100 $10^6m^3$ (3.5 Bcf) in size, as estimated by the Board, and only 43 percent of the pools are currently producing.

Poco's potential supply is essentially the same as that submitted in support of its export licence applications for Licences GL-117 and GL-118, with minor revisions due to subsequent drilling.

All of Poco's potential supply is found in Alberta.

The Board's estimate of Poco's undiscovered potential supply is 2 944 $10^6m^3$ (104 Bcf), as compared to Poco's estimate of 3 598 $10^6m^3$ (127 Bcf). The Board recognized five of Poco's pools as established reserves, since they have been drilled, and accounted for these reserves in its established reserves estimate. The Board is of the view that a significant portion of the remainder of the undiscovered potential could be considered as probable reserves, since it consists of undrilled sections of land located in well-developed areas. However, the Board has included this supply in its estimate of undiscovered potential. The Board has discounted all of the potential gas supply by a risk factor similar to the 33 percent used by Poco.

In summary, the Board's estimate of Poco's established reserves is less than that of Poco. Differences in the estimates of established reserves are primarily due to differences in interpretation of net pay but also arise due to differences in interpretation of pool performance which yielded minor differences in estimates of

recovery factors. The Board's estimate of Poco's undiscovered potential is less than that of Poco, with the difference being in interpretations of net pay for several pools. In total, the Board's estimate of Poco's established reserves and undiscovered potential is less than that of Poco, but is considerably higher than the total requirements comprised of the applied-for volumes and the previously-approved requirements for Licences GL-117 and GL-118.

### 3.2.3 Productive Capacity

Poco's applied-for (maximum) requirements include previously-licensed volumes under GL-117 and GL-118 and the proposed exports to Washington Natural and IGI, all at a 100 percent load factor. A four percent allowance was made for fuel, which Poco intends to supply, and Poco stated that it would purchase gas to replace volumes lost due to shrinkage. The expected requirements reflect anticipated load factors ranging from 75 to 85 percent for the four export sales (including an allowance for fuel).

The applied-for term volume is the sum of the expected annual requirements, as opposed to the maximum annual requirements. In view of the term-volume limitation, the maximum annual requirements cannot be produced over the entire term of the proposed licence. Thus, when assessing Poco's supply capability, the Board considers it more appropriate to compare productive capacity to the expected annual requirements over the complete term, rather than to the maximum annual requirements.

Figure 1 compares Poco's projections of productive capacity with the expected and maximum requirements to be met by its gas supply. Poco's projections of productive capacity, which it adjusted to reflect the expected requirements, shows that productive capacity from the established reserves will be sufficient to meet the expected requirements until about 1996. Beyond 1996, productive capacity shortfalls are anticipated to occur from this supply source and undiscovered potential supply will be required to supplement productive capacity from the established reserves in order to meet the expected requirements.

Figure 1 shows that Poco must rely on productive capacity from the undiscovered potential supply in order to meet its maximum requirements. In fact, during the initial years, Poco must also rely upon third-party gas to mitigate any shortfalls in supply because productive capacity from established reserves may be insufficient to meet requirements, and undiscovered potential supply will require lead-time to be drilled and connected. It should also be noted that Poco's projection of productive capacity (including established reserve and undiscovered potential) would be lower if it were adjusted to reflect the maximum requirements.

A comparison of the Board's projections of productive capacity to Poco's expected requirements is shown in Figure 2. Productive capacity from Poco's established reserves is adequate to meet the expected requirements until 1996, at which time the Board projects that Poco will require additional supply from the undiscovered potential in order to continue to meet its total requirements. The shortfall in productive capacity from established reserves commences in 1997 and reaches a maximum of 36 percent.

The Board's projections of productive capacity are compared to Poco's maximum requirements in Figure 3. In this scenario, the Board estimates that productive capacity from Poco's established reserves will be insufficient to meet the maximum requirements throughout the term. However, with the inclusion of the undiscovered potential supply, the maximum requirements can be met throughout the term of the proposed export, with the exception of the initial years when Poco must also rely upon third-party gas.

Generally, the Board's and Poco's assessments of the adequacy of Poco's gas supply are quite similar. This is largely attributable to the similar estimates of reserves and the Board's adoption of Poco's assumptions regarding connection schedules for the undiscovered potential supply.

Both the Board's and Poco's projections of productive capacity indicate that supply from established reserves will be sufficient to meet Poco's expected requirements until 1996, after which Poco will require additional productive capacity from its undiscovered potential supply. Poco stated that any shortfalls in productive capacity which may occur could be remedied by its undiscovered potential supply or third-party gas.

Figure 1

## COMPARISON OF POCO'S ESTIMATE OF ANNUAL PRODUCTIVE CAPACITY TO ITS MAXIMUM AND EXPECTED REQUIREMENTS

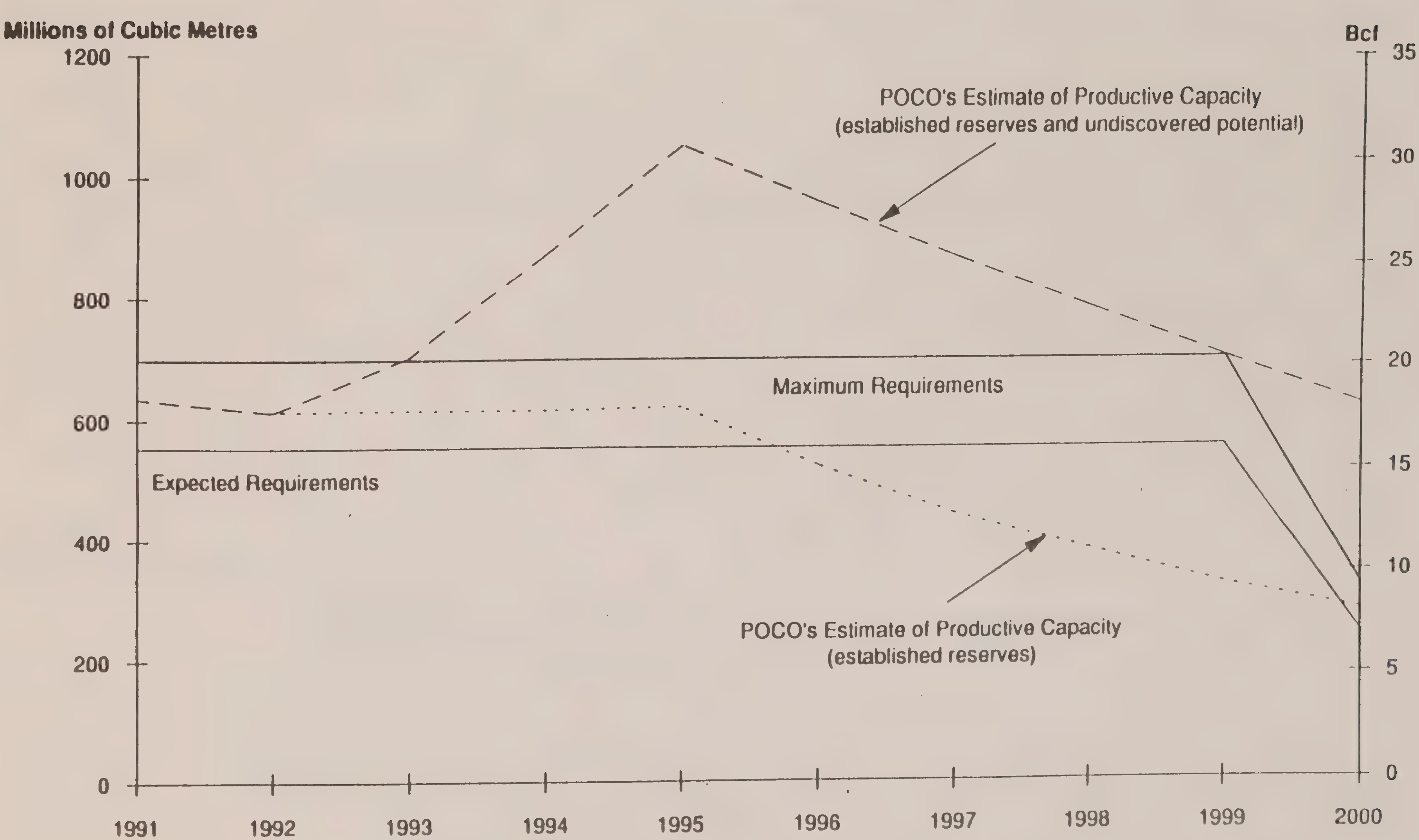


Figure 2

## COMPARISON OF NEB'S ESTIMATE OF ANNUAL PRODUCTIVE CAPACITY TO POCO'S EXPECTED REQUIREMENTS

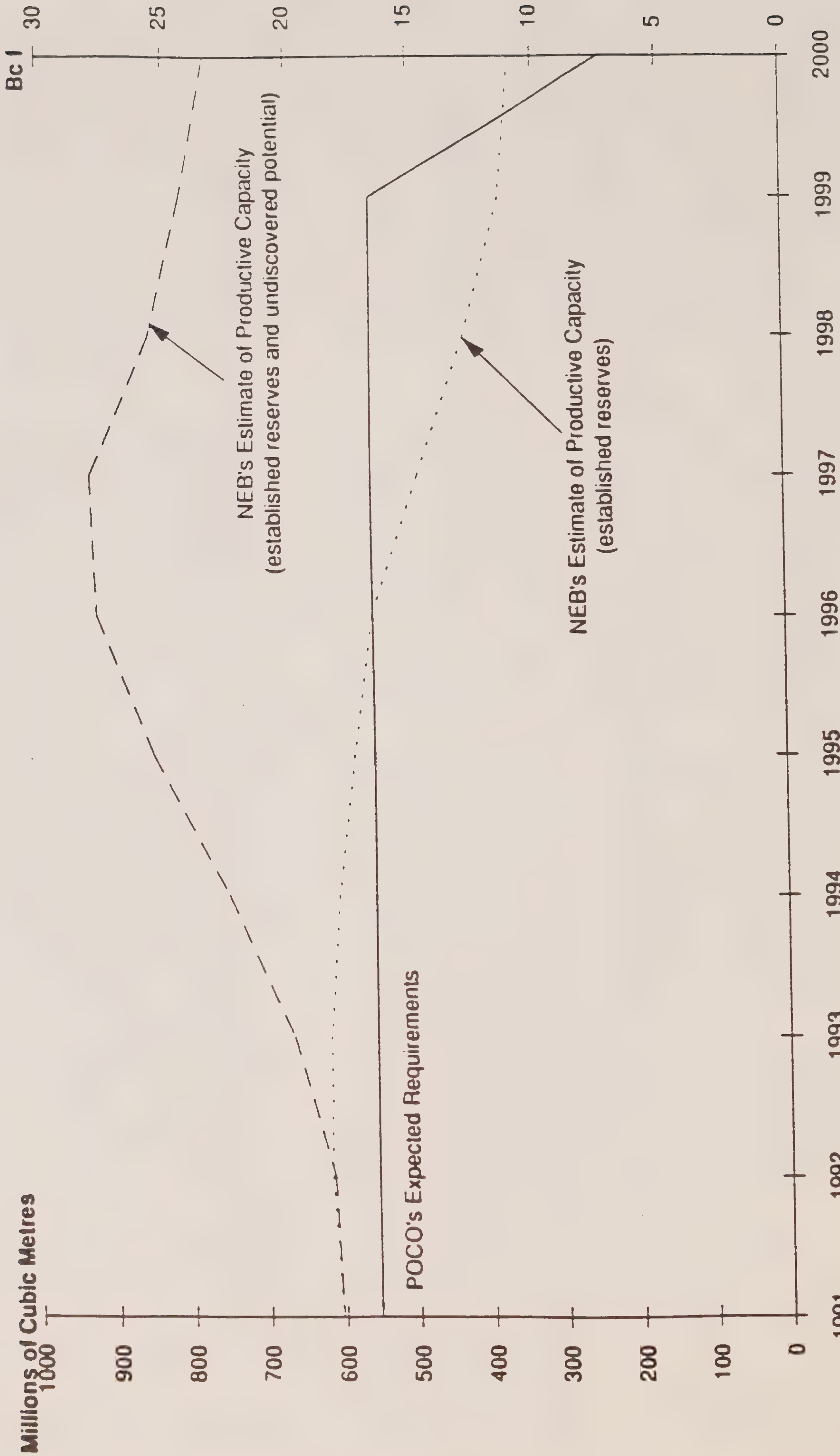
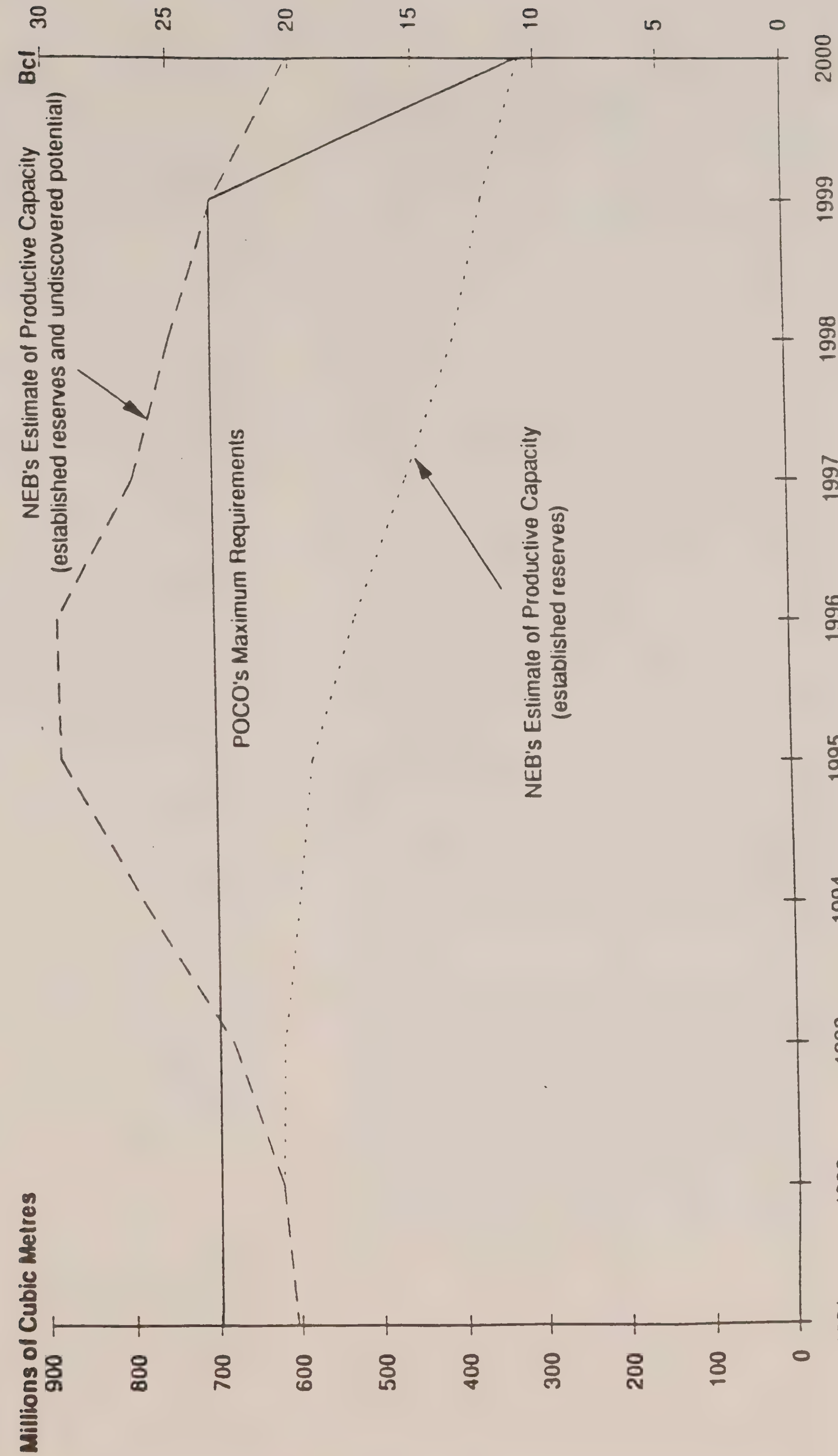


Figure 3

## COMPARISON OF NEB'S ESTIMATE OF ANNUAL PRODUCTIVE CAPACITY TO POCO'S MAXIMUM REQUIREMENTS



Additionally, Poco suggested that it could rely on its ongoing exploration and development programs or acquisitions to mitigate any shortfalls in gas supply.

## 3.3 Market, Commercial Arrangements and Regulatory Status

### *3.3.1 Market*

The gas proposed for export to Washington Natural would be used as system supply, replacing firm gas supply previously purchased from Northwest under firm service contracts. Washington Natural, a wholly-owned subsidiary of Washington Energy Company, is a Seattle, Washington based local distribution company serving 330,000 residential, commercial and small industrial customers in the Puget Sound area. Historically, Washington Natural has purchased all of its gas supply from Northwest. When Northwest became an open access pipeline in June 1988, Washington Natural decided to convert about one-half of the Northwest supply to firm transportation capacity. To meet its firm, peak-day requirements, Washington Natural has long and short-term gas supply contracts for 2 691 $10^3m^3$ per day (95 MMcf) of which 58 percent, or 1 558 $10^3m^3$ per day (55 MMcf), was from Canada and 42 percent was from U.S. supply sources. The applicant testified that this 58/42 ratio would apply to future supply arrangements for gas delivered on Northwest.

Washington Natural's normal average annual requirements are approximately 5 666 $10^3m^3$ per day (200 MMcf), while peak day requirements have been in excess of 14 164 $10^3m^3$ (500 MMcf). In the next ten years Washington Natural expects to experience steady annual growth in its firm gas requirements of some 550 to 850 $10^3m^3$ per day (20 to 30 MMcf) due to the result of a strong and expanding local economy, a steady growth in population and continuing conversions to natural gas. In addition, Washington Natural expects to see a 12-percent increase in its interruptible sales during the period 1989 to 2000.

Poco testified that deliveries to Washington Natural were already being made under a short-term order. Once deliveries have commenced under a licence, the applicant expects the annual average load factor to be 80 percent.

### *3.3.2 Transportation*

In Canada, Poco's total export requirements (including the sale to IGI), would be delivered by NOVA directly either to Westcoast or to Westcoast (Alberta) and then to Westcoast, for shipment to the U.S. border near Huntingdon, British Columbia. In the U.S., the gas would be transported to market on Northwest.

The applicant proposes to export a total of 991 $10^3m^3$ per day (35 MMcf) at Huntingdon, British Columbia of which approximately 425 $10^3m^3$ per day (15 MMcf) would be destined for Washington Natural's market. Poco testified that it has transportation agreements that would provide a high degree of reliability as well as operational flexibility in order to deliver the gas.

Specifically, Poco currently has 680 $10^3m^3$ per day (24 MMcf) of firm capacity on NOVA, the majority of which is under contracts which expire on 1 November 1993 but can be renewed on three months' notice. Poco also testified that firm service on NOVA would increase to 1 388 $10^3m^3$ per day (49 MMcf) on 1 November 1991 and to 1 870 $10^3m^3$ per day (66 MMcf) on 1 November 1992. On Westcoast (Alberta), Poco has firm transportation service for 566.6 $10^3m^3$ per day (20 MMcf) under two contracts which expire on 31 October 1991 and 31 January 1997 respectively. Both contracts provide for renewal if notice is given.

On Westcoast, Poco has firm service to provide for 566.6 $10^3m^3$ per day (20 MMcf) of gathering and processing for British Columbia gas. Poco also has 1 757.1 $10^3m^3$ per day (62 MMcf) of firm transportation service on Westcoast to Huntingdon, British Columbia under contracts that expire on 31 October 1991 and 31 January 1997. Both of these contracts have annual renewal rights.

In the U.S., Washington Natural has a firm transportation agreement dated 25 June 1988 which provides for 4 447 $10^3m^3$ per day (157 MMcf) of service until 31 October 2004. Poco testified that in addition to the foregoing, Washington Natural had concluded a new contract dated 1 October 1990 that would provide an additional 929 $10^3m^3$ per day (33 MMcf) of firm capacity.

### *3.3.3 Gas Sales Contract*

The gas proposed for export would be purchased by Washington Natural from Poco under an executed gas purchase contract dated 1 November 1989.

The contract term is from 1 November 1989 to 31 October 1999 and provides for the sale of 424.9 $10^3m^3$ (15 MMcf) on a daily basis. Under the terms of the contract, Washington Natural is obligated to nominate a minimum quantity of gas each year equal to 55 percent of the daily quantity times 365 . In addition, each month the buyer is required to nominate a minimum of the lesser of 33.3 percent of the contract quantity or 10 percent of its total purchases of natural gas to satisfy its markets. In the event that Washington Natural fails to nominate these minimum levels, Poco has the right to reduce the contract quantity. However, Washington Natural must continue to pay the demand charge based on the initial contract quantity. If for any reason, other than *force majeure*, Poco is unable to deliver gas, Washington Natural has the right to purchase other gas and/or reduce the contract quantity.

The contract includes a two-part pricing structure consisting of a demand charge and a commodity charge.

The demand charge component is made up of the sum of the Westcoast firm service, gathering, treatment, processing and transportation demand charges. The contract does not provide for the direct recovery of the NOVA transportation charges in the demand charge. Poco stated that the projected revenues resulting from this sale to Washington Natural would generate sufficiently high netbacks to provide for the recovery of these NOVA costs. The applicant testified that the demand charges would be paid by Washington Natural regardless of whether or not gas is delivered.

The commodity charge component for all gas delivered in the first contract year would be \$U.S. 1.16/GJ (\$U.S. 1.25/MMBtu) for purchases up to 3 million MMBtu (approximately 3 Bcf or 85 $10^6m^3$) and \$U.S. 98/GJ (\$U.S. 1.05/MMBtu) for purchases in excess of 3 million MMBtu.

The contract allows for an annual redetermination of the commodity charge if requested by either party. In the event that the parties are unable to agree on the new level of the commodity charge, the matter may be submitted to binding arbitration.

### *3.3.4 Regulatory Status*

With respect to its Alberta permits, Poco had in place a short-term Alberta Energy Resources Conservation Board ("ERCB") removal permit, GR-89-216, which expired on 5 December 1990. At the time of the hearing, Poco advised the Board that it was in the process of preparing its long-term permit application.

Poco also has a short-term British Columbia Ministry of Energy permit ERC 02 (90 01) which expires on 23 January 1992. Poco had not, at the time of the hearing, filed for its long-term removal permit from British Columbia.

Washington Natural has obtained a long-term import authorization from the (United States of America) Department of Energy, Office of Fossil Energy ("DOE/FE").

## 3.4 Views of the Board

The Board is satisfied with Poco's gas supply position based on the filed data. Although the Board's estimate of Poco's established reserves and undiscovered potential is less than that of Poco, it is considerably higher than Poco's total requirements.

The Board's projection of productive capacity indicated that supply from established reserves will be sufficient to meet Poco's expected requirements until 1996, after which Poco will require additional productive capacity from its undiscovered potential supply. The Board is satisfied that any shortfalls in productive capacity which might occur could be remedied from Poco's undiscovered potential supply, third-party gas or from Poco's ongoing exploration and development programs or acquisitions.

The Board is satisfied that the contract between Poco and Washington Natural provides for the recovery of fixed transportation costs associated with the firm service gathering, treatment, processing, and transportation demand charges on the Westcoast system would be recovered. The Board notes that the fixed costs associated with

the movement of gas by NOVA are not included in the demand charge. However, the Board is satisfied that the projected revenue as calculated by Poco would result in a netback that is adequate to allow for the recovery of the NOVA transportation costs.

It is the view of the Board that, because the commodity component of the price may be redetermined on an annual basis, the contract's pricing provisions permit adjustments in the export price to reflect changing market conditions.

The Board is satisfied that there is a reasonable assurance that the gas would be taken since under the terms of the contract, Washington Natural is obligated to nominate a minimum annual quantity equal to about 55 percent of the maximum annual quantity and in addition, as previously mentioned, the Westcoast demand charges are to be paid regardless of whether or not gas is delivered.

Having reviewed the Poco/Washington Natural sales contract, the Board is satisfied that it was negotiated at arm's length, that it is of commercial substance, and it is likely to endure throughout its term. The Board notes that sales to Washington Natural are already occurring under short-term orders.

Although at the time of the close of the hearing Poco did not have all of its requisite Canadian and U.S. regulatory authorizations in place, the Board does not consider this to be an impediment to Poco's proposed export.

Since the gas proposed for export is owned or controlled by Poco, evidence of producer support was not required.

## 3.5 Decision

The Board has decided to issue a new gas export licence to Poco subject to the approval of the Governor in Council. Appendix I sets out the terms and conditions of the export licence, including a condition that the term of the licence shall commence upon Governor in Council approval and shall end on 1 November 1993, unless exports have commenced under the licence on or before 1 November 1993, in which case the term would end nine years and two months following the commencement of the term of the licence.

# Chapter 4

# Poco Petroleums Ltd./IGI Resources Inc.

## 4.1 Application Summary

By application dated 31 July 1990, Poco sought, pursuant to Part VI of the Act, a licence to export natural gas with a term of nine years for sales near Huntingdon, British Columbia and/or Kingsgate, British Columbia to IGI.

Poco applied for a licence with the following terms and conditions:

| | | |
|---|---|---|
| Term | - 1 November 1990 to 31 October 1999 | |
| Maximum Daily Quantity | - 566.6 $10^3m^3$ | (20.0 MMcf) |
| Maximum Annual Quantity | - 206.8 $10^6m^3$ | (7.3 Bcf) |
| Maximum Term Quantity | - 1 583.0 $10^6m^3$ | (55.9 Bcf) |
| Tolerances | - 10 percent per day and 2 percent per year | |

The gas proposed for export would come from reserves in Alberta, Saskatchewan and British Columbia. In Canada, initially the gas would be delivered by NOVA either directly to Westcoast at Boundary Lake, Alberta or to the Westcoast (Alberta) system at Gordondale, Alberta and then delivered to Westcoast for transport to the export point at Huntingdon, British Columbia. In the U.S., the gas would be shipped on the Northwest system. In the next few years, when a Pacific Gas Transmission Company ("PGT") expansion is completed, Poco intends to ship some of the gas proposed for export via a NOVA, Alberta Natural Gas Company Ltd. ("ANG") and PGT route.

The gas would be purchased by IGI for delivery as system supply to Intermountain Gas Company ("Intermountain"), an LDC in Idaho, and to C.P. National Corporation ("C.P. National"), an LDC in Oregon.

## 4.2 Gas Supply

Poco's gas supply is discussed in section 3.2 of these Reasons.

## 4.3 Market, Commercial Arrangements and Regulatory Status

### *4.3.1 Market*

IGI is a fully-integrated, natural gas supply and customer service organization serving LDCs and end-use industrial markets, primarily in the Pacific Northwest. IGI operates primarily under a natural gas procurement and administrative service agency agreement with its various customers. IGI serves in excess of 150 industrial end-users, two broker/marketers and four LDCs. The gas proposed for export by Poco for sale to IGI would be resold to Intermountain and C.P. National. Poco estimated that 75 percent of the gas would be sold to Intermountain while 25 percent would go to C.P. National over the term of the proposed licence.

Intermountain is the sole distributor of natural gas in southern Idaho. Intermountain serves 105,000 residential and commercial customers, representing approximately 40 percent of its sales requirements. Intermountain's 87 industrial customers, accounting for approximately 60 percent of its requirements, use gas for boiler and manufacturing applications and as feedstock in the production of chemical fertilizers.

Traditionally, Intermountain had purchased its gas supply by way of sales service from Northwest. Intermountain converted virtually all of its sales service to firm transportation service when open access transportation on Northwest was made available in June 1988. Intermountain's total gas requirements would be provided from IGI's current and anticipated future gas supply portfolio which would be made up of 60 percent Canadian gas, from Alberta and

British Columbia, and 40 percent from U.S. supplies from the Rocky Mountain region.

C.P. National is an LDC serving about 68,000 residential, commercial and industrial customers in the states of Oregon, California and Nevada. C.P. National's customer base has grown by over 15 percent since 1986 and the company expects this growth to continue in view of new home construction and conversions to natural gas from other energy forms.

The gas proposed for export by Poco for sale to IGI would be used by C.P. National in the state of Oregon, where it serves approximately 43,000 customers. Its historical customer mix has been 50 percent residential and 41 percent firm commercial and industrial with the remaining nine percent being interruptible customers. C.P. National provided a forecast of sales for its Oregon operation which indicated that annual volumes would increase from 7.6 Bcf (215 $10^3m^3$) in 1990 to 9.1 Bcf (258 $10^3m^3$) in the year 2000, a 20 percent increase. Similar to Intermountain, C.P. National also converted its sales service on Northwest to transportation service and has contracted with IGI for its long-term supply requirements.

Poco stated that the load factor over the term of the proposed export would likely average 85 percent.

### 4.3.2 Transportation

Initially, in Canada, the gas would be delivered by NOVA either directly to Westcoast or to Westcoast (Alberta) and then to Westcoast, for shipment to the international border near Huntingdon, British Columbia. In the U.S., the gas would be transported to market on Northwest. At a later date, as soon as firm capacity is available on PGT, it is Poco's intention to sell gas to IGI via the NOVA/ANG/PGT route through the Kingsgate, British Columbia export point.

The applicant proposes to export a total of 991 $10^3m^3$ per day (35 MMcf) at Huntingdon, British Columbia of which approximately 567 $10^3m^3$ per day (20 MMcf) would be destined for IGI's market. Poco testified that it has transportation agreements that would provide a high degree of reliability as well as operational flexibility in order to deliver the gas.

Utilization of the Kingsgate, British Columbia exit point would not occur until firm capacity on PGT, for which an expansion has been proposed, is available sometime between 1 November 1993 and 1 November 1994. To accommodate any such shipments IGI has executed a precedent agreement for firm service with ANG for 935 $10^3m^3$ per day (33 MMcf) as well as a precedent agreement for firm service on PGT to transport some of the gas purchased from Poco.

The Poco/IGI U.S. transportation arrangements are part of and included in the Poco/Washington Natural transportation description included in section 3.3.2 of these Reasons.

### 4.3.3 Gas Sales Contract

The gas to be exported would be sold by Poco to IGI under an executed gas purchase contract dated 1 May 1990. The term of the contract is from 1 May 1990 to 31 October 1999 and month-to-month thereafter until such time as either party gives 12 months notice of cancellation. The contract provides for maximum daily and annual quantities of 20,000 MMBtu and 7,300,000 MMBtu respectively. IGI is obligated to nominate for up to 85 percent of the maximum annual quantity and should it fail to do so for any two consecutive years, then Poco could reduce the annual contract quantity to the level of the actual volumes nominated.

Under the terms of the contract, the gas may, at Poco's discretion, be delivered to either a delivery point at Sumas, Washington (Westcoast/Northwest interconnect at Huntingdon, British Columbia) or Kingsgate, Idaho (ANG/PGT interconnect at Kingsgate, British Columbia). If the Kingsgate delivery point is utilized, unless otherwise agreed to, Poco would be responsible for PGT transportation charges as well as any Northwest costs incremental to those from the Sumas, Washington delivery point.

The price in the sales contract is comprised of the sum of a demand charge, a stand-by fee and a commodity charge. In the first year, the demand charge would be the daily contract quantity times the number of days in the month times $U.S. 0.50 per MMBtu. In subsequent years, the demand charge component would be increased or decreased to the extent to which the Board approved changes to Westcoast's tolls.

The demand charges would be paid by IGI regardless of whether or not gas is delivered. The contract does not provide for the direct recovery of the NOVA transportation charges in the demand charge. Poco stated that the projected revenues resulting from this sale to IGI would generate sufficiently high netbacks to provide for the recovery of these NOVA costs.

The stand-by fee would be equal to the daily contract quantity times the number of days in the month times $U.S. 0.05 per MMBtu until redetermined. The commodity charge would be equal to $U.S. 1.04/GJ ($U.S. 1.12/MMBtu).

The stand-by fee and the commodity charge are subject to annual redetermination and, if negotiations are unsuccessful, binding arbitration. In the event that binding arbitration is used three times, either party may give notice of its intent to terminate the contract.

### 4.3.4 *Regulatory Status*

With respect to its Alberta removal permits, Poco advised the Board that it had in place three short-term removal permits from the ERCB, GR-89-216 which expired 5 December 1990, and GR-87-158A and GR-159A, both of which expired 20 August 1991. Poco also has in place a long-term ERCB permit, GR-87-62, which is in effect until 12 November 1997 and Poco stated that it intended to apply for an extension to 31 October 1999 for this permit.

Poco's British Columbia permits consist of a short-term one, ERC 02 (90 01) which was in effect to 23 January 1992. At the time of the hearing, Poco advised the Board that it had not made its application to the British Columbia Ministry of Energy for its long-term removal permit.

Poco applied on 25 October 1990 to the DOE/FE for its long-term import order.

## 4.4 Views of the Board

The Board is satisfied with Poco's gas supply position based on the filed data. Although the Board's estimate of Poco's established reserves and undiscovered potential is less than that of Poco, it is considerably higher than Poco's total requirements.

The Board's projection of productive capacity indicated that supply from established reserves will be sufficient to meet Poco's expected requirements until 1996, after which Poco will require additional productive capacity from its undiscovered potential supply. The Board is satisfied that any shortfalls in productive capacity which might occur could be remedied from Poco's undiscovered potential supply, third-party gas or from Poco's ongoing exploration and development programs or acquisitions.

The Board is satisfied that the Poco/IGI contract was negotiated at arm's length, that it is of commercial substance and that it is likely to endure throughout its term. The Board notes that sales to IGI are already occurring under short-term orders.

Given that the demand charges would be paid by IGI, whether or not the gas is delivered, the Board is satisfied that the fixed transportation costs associated with the firm service gathering, treatment, processing, and transportation demand charges on the Westcoast system would be recovered. The Board notes that the fixed costs associated with the movement of gas by NOVA are not included in the demand charge. However, the Board is satisfied that the projected revenue as calculated by Poco would result in a netback that is adequate to allow for the recovery of the NOVA transportation costs.

The contract between Poco and IGI sets out the stand-by fee and commodity charge for the first year. Both of these components of the contract price are subject to renegotiation on an annual basis at the request of either party. As such, the contract's pricing provisions permit adjustments in the export price to reflect changing market conditions.

The Board is satisfied that there is a reasonable assurance that the gas would be taken on the basis of IGI's contractual obligation to nominate for up to 85 percent of the maximum annual quantity, the contract's provision for annual price redetermination and the fact that the Westcoast demand charges would be paid regardless of the volume of gas that is actually delivered.

Although at the time of the close of the hearing Poco did not have all of its requisite Canadian and U.S. regulatory authorizations in place, the Board

does not consider this to be an impediment to Poco's proposed export.

Evidence of producer support was not needed in view of the fact that all the gas proposed for export is owned or controlled by Poco.

## 4.5 Decision

The Board has decided to issue a new gas export licence to Poco subject to the approval of the Governor in Council. Appendix I sets out the terms and conditions of the export licence, including a condition that the term of the licence shall commence upon Governor in Council approval and shall end on 1 November 1993, unless exports have commenced under the licence on or before 1 November 1993, in which case the term would end nine years following the commencement of the term of the licence.

# Chapter 5

# Disposition

The foregoing chapters constitute our Decision and Reasons for Decision in respect of the export applications heard by the Board in the GH-7-90 proceedings.

W.G. Stewart
Presiding Member

R. Priddle
Member

R.B. Horner, Q.C.
Member

Calgary, Canada
March 1992

# Appendix I

## Terms and Conditions of the Licences to be Issued

### Terms and Conditions of the Licence to be Issued to Poco Petroleums Ltd. for Sale to Washington Natural Gas Company

1. The term of this Licence shall commence upon Governor in Council approval and shall end on 1 November 1993 unless exports commence hereunder on or before 1 November 1993, in which case the term will end nine years and two months following commencement of the term of this Licence.

2. Subject to condition 3, the quantity of gas that may be exported under the authority of this Licence shall not exceed:

   (a) 424 900 cubic metres in any one day;

   (b) 155 100 000 cubic metres in any consecutive twelve-month period ending on 31 October; or

   (c) 1 138 400 000 cubic metres during the term of this Licence.

3. (a) As a tolerance, the amount that may be exported in any 24-hour period under the authority of this Licence may exceed the daily limitation imposed in condition 2 by ten percent.

   (b) As a tolerance, the amount that may be exported in any consecutive twelve-month period under the authority of this Licence may exceed the annual limitation imposed in condition 2 by two percent.

4. Gas exported under the authority of this Licence shall be delivered to the point of export near Huntingdon, British Columbia.

### Terms and Conditions of the Licence to be Issued to Poco Petroleums Ltd. for Sale to IGI Resources Inc.

1. The term of this Licence shall commence upon Governor in Council approval and shall end on 1 November 1993 unless exports commence hereunder on or before 1 November 1993, in which case the term will end nine years following commencement of the term of this Licence.

2. Subject to condition 3, the quantity of gas that may be exported under the authority of this Licence shall not exceed:

   (a) 566 600 cubic metres in any one day;

   (b) 206 800 000 cubic metres in any consecutive twelve-month period ending on 31 October; or

   (c) 1 583 000 000 cubic metres during the term of this Licence.

3. (a) As a tolerance, the amount that may be exported in any 24-hour period under the authority of this Licence may exceed the daily limitation imposed in condition 2 by ten percent.

   (b) As a tolerance, the amount that may be exported in any consecutive twelve-month period under the authority of this Licence may exceed the annual limitation imposed in condition 2 by two percent.

4. Gas exported under the authority of this Licence shall be delivered to either of the points of export near Huntingdon or Kingsgate, British Columbia.